

FIUTOWSKI, J.

Prophylaxis and treatment of alcoholism in Austria and Switzerland;  
report from a stay for schooling. Neurol neurochir psych 12 no.1:152-  
157 Ja-F '62

1. Państwowy Szpital dla Nervowo i Psychicznie Chorych, Pruszkow.  
Dyrektor: dr med. F. Kaczanowski.

FIUTOWSKI, Stanislaw

Economic premises for feeding sugar-beet pulp in fattening pigs.  
Postępy nauk roln. 12 no.1:93-106 Ja-F '65.

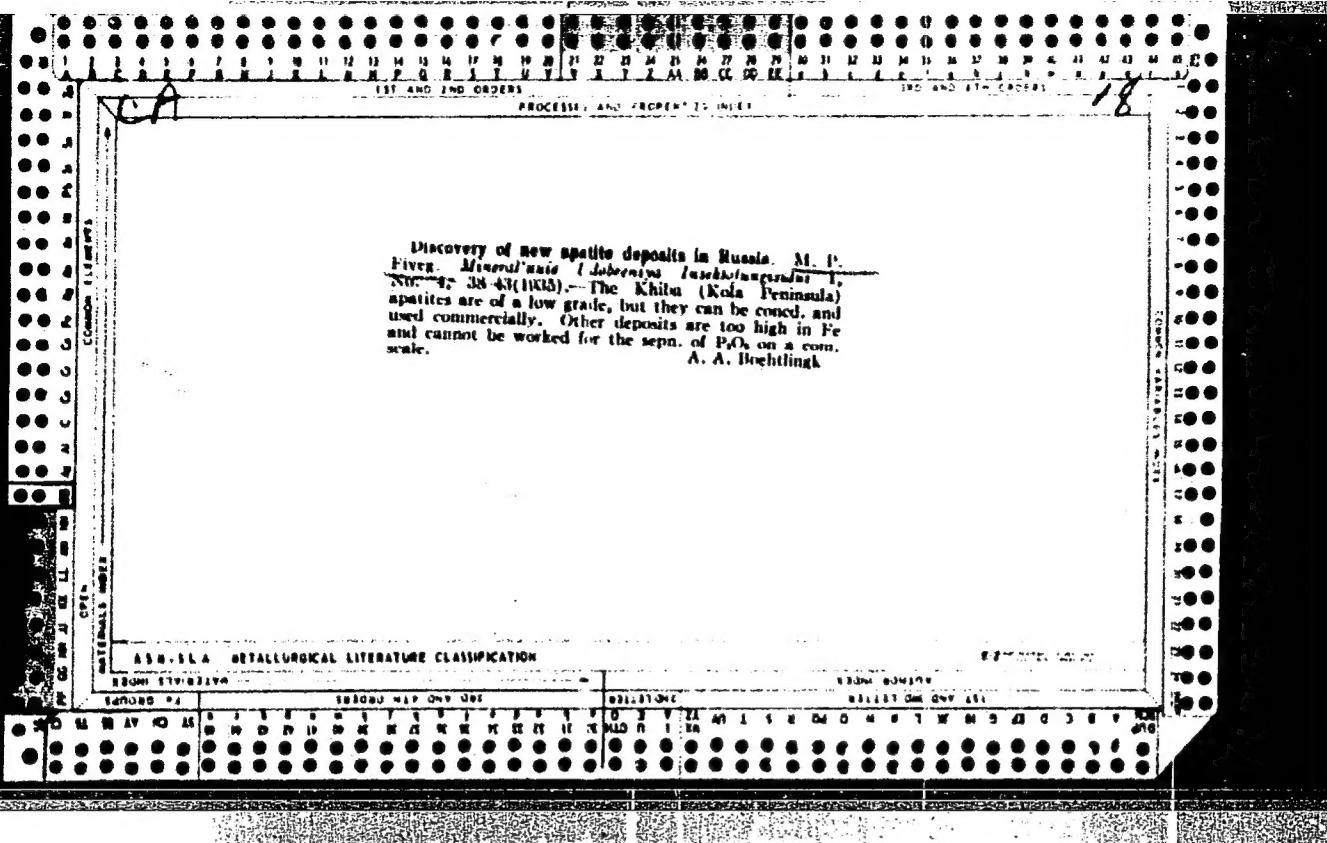
1. Institute of Agricultural Economics, Warsaw.

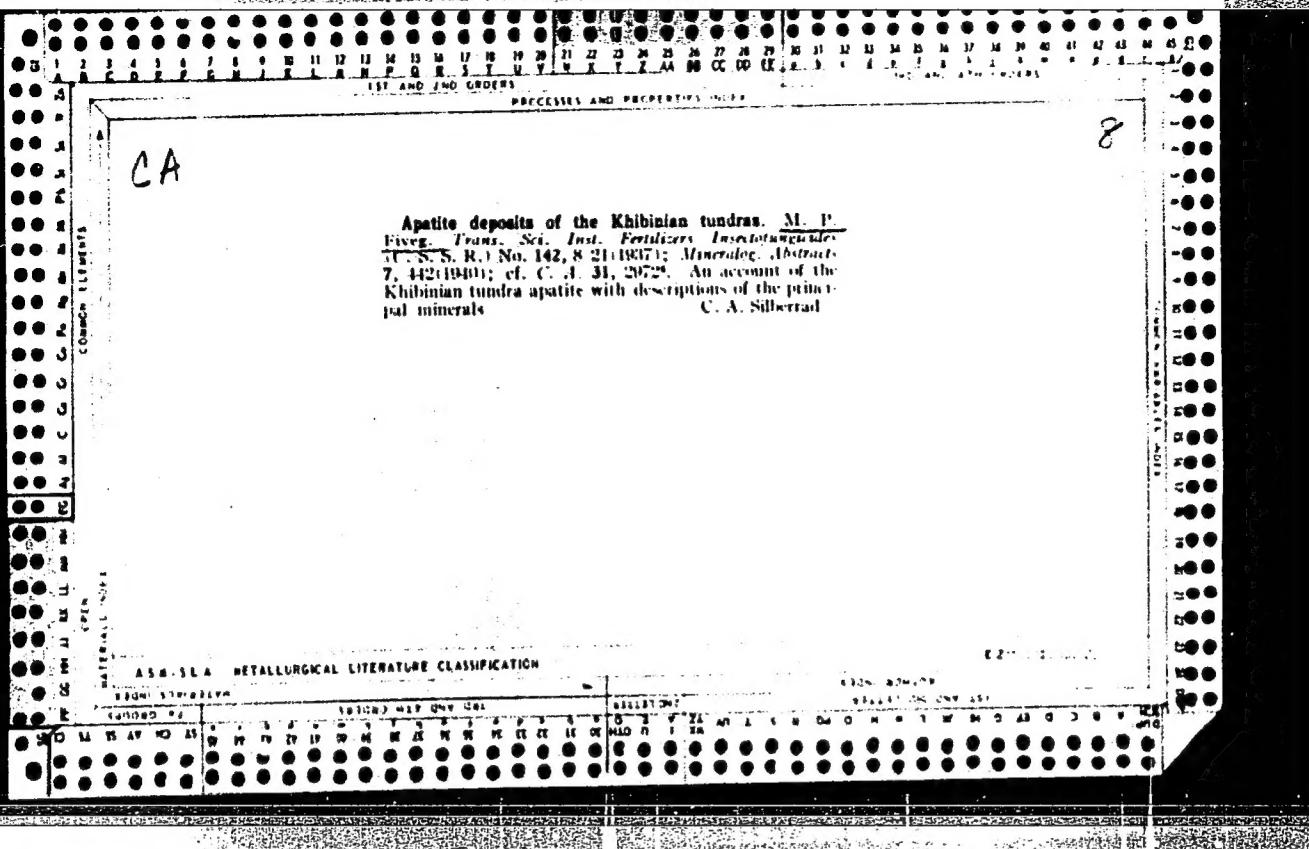
The mineralogic characteristic of the phosphates of Russian phosphate deposits in connection with their agronomic utilization. M. P. VYKOV AND S. N. RUMYANTSEV. *Udobreniya i Urozhai* (Fertilizers and Yields) 1929, 311-11. The deposits of Russian phosphates which contain no apatite as a nucleus consist of kurkite (apparently from the name of the government Kurk), where some phosphate deposits are located, which is optically inactive, and stassfite, which is optically active and well crystallized. On the basis of microscopic and chem. analyses these were divided into 3 petrographic types: (1) glaucite-clay, (2) sandy and (3) glauciteitic. The glauciteitic clay type belongs to the kurkite. The chief mass of the sandy phosphates which is not active in polarized light also belongs to kurkite. Some crystalline stassfite is found along with the kurkite in the sandy phosphates. Vegetation expts. have shown that the amorphous kurkite is just as good as sol. phosphate in both sand and soil cultures, while the stassfite gives negative results. To det. the syl. of the 2 varieties of phosphate, 3 kinds of extractors were used: (1) 2% citric acid, (2) citrate buffer mixt. and (3) tartrate buffer mixt. The  $\text{pH}$  of the buffer mixts. was 4.0. Five-g. samples of the phosphates were treated with 500 cc. of the solns. and shaken for 2 hrs. in a rotary shaking machine, then filtered and P was detd by the Lorenz method. The kurkite phosphates are more sol., although the differences between kurkite and stassfite were not as clear-cut as in the vegetation expts. J. S. JOFFE

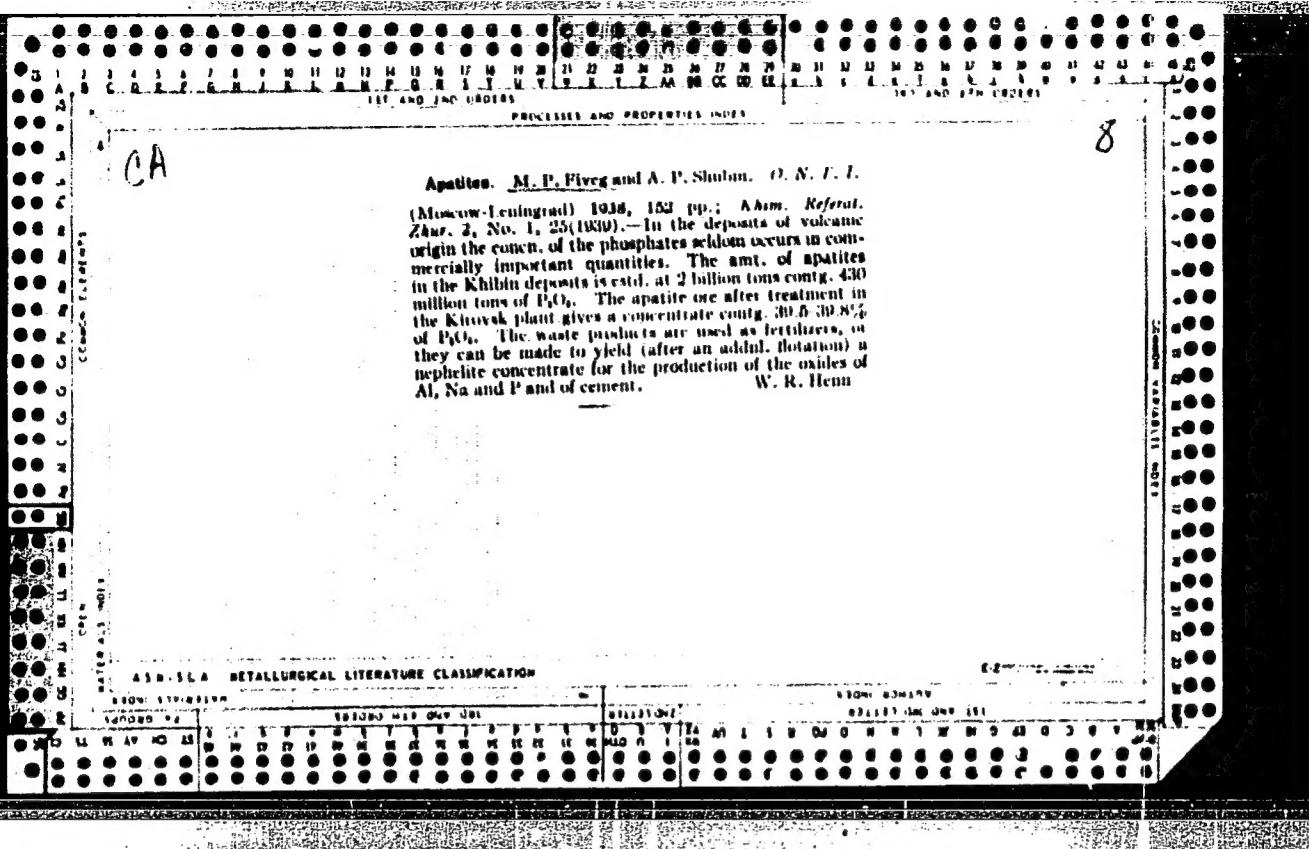
J. S. JONES

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413320001-7"







Prepared and presented by  
M. P. Fliss and M. D. Dorfman. *Tsvetnye Metal.* 1938,  
Vol. 10, No. 2. --The Belukha and Bokuka W ore deposits  
are situated among Post Middle Jurassic granodiorites  
and quartz dikes near the contact zone with Jurassic  
clay slates and sandstones. The formation of the ores is  
the result of six phases of mineralization. The W minerals  
are wolframite and scheelite. Part of the deposits is now  
being worked commercially. B. N. Daniloff

Classification

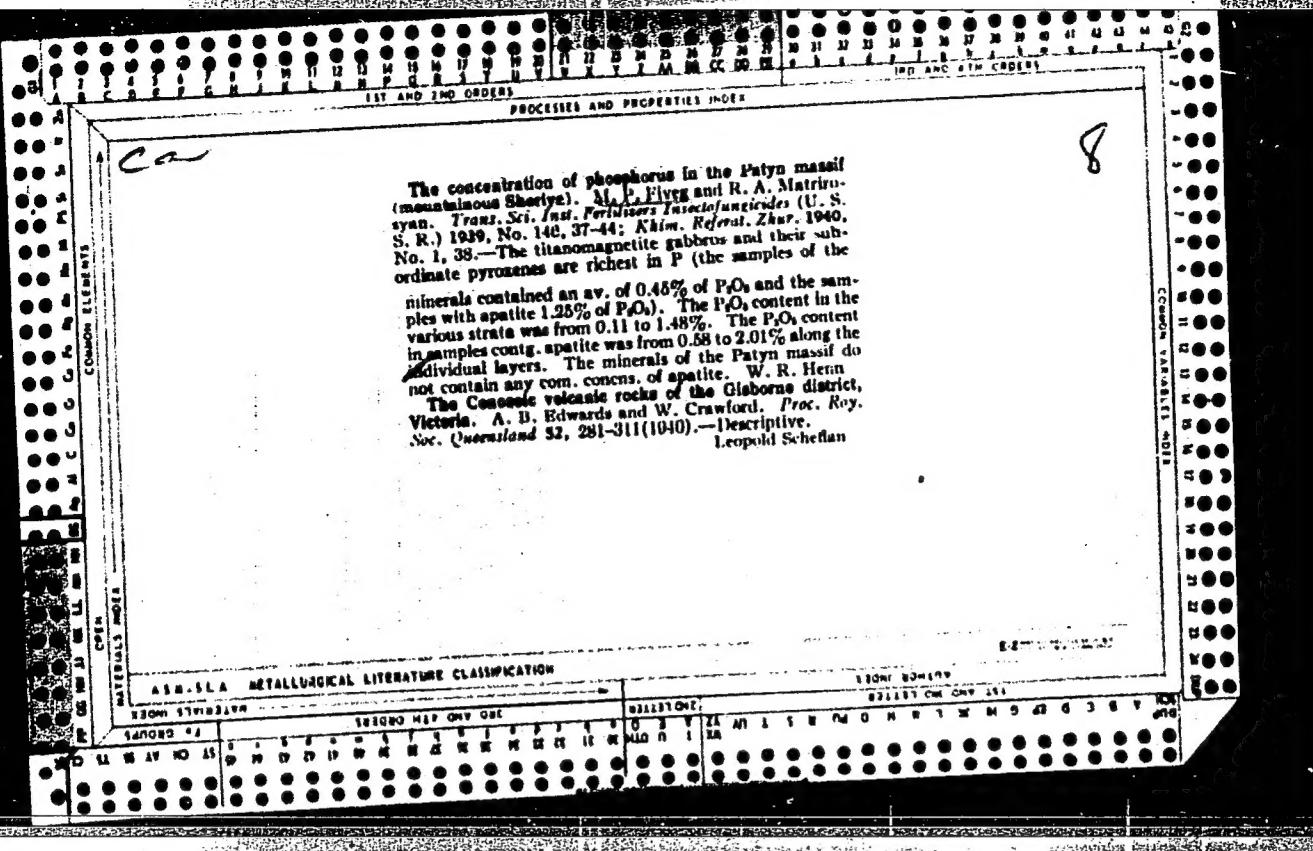
ASR SLA METALLURGICAL LITERATURE CLASSIFICATION

**Khibin apatite.** S. I. Vol'kovich, M. P. Fiziev and L. K. Berlin. *Nauč. Inst. Udobrenij i Tödöv. Sjundjurdam*, No. 1, Sommers 1919-39, 17, 24 (1939); *Khim. Referat. Zhur.* 1939, No. 6, 83.—The Khibin apatite deposits are described. The deposits contain 2 billion tons of apatite-petroleum minerals. The av.  $P_2O_5$  content is approx. 21%. Approx. 1/3 of the deposits contain 30%  $P_2O_5$ . The output of the mine is 4.2 million tons of ore annually. The enriched Botskay apatite concentrate contains 30.2%  $P_2O_5$ . Nephelite, a waste product obtained in enriching the apatite, is utilized. The nephelite concentrate contains  $Al_2O_3$  up to 30,  $K_2O$  5-6,  $Na_2O$  12-13 and  $P_2O_5$  2.0-2.5%. The output of nephelite is 200,000 tons. The utilization of the apatite-nephelite minerals (in the Ukarop mountains) is a characteristic example of the complex utilization of raw material. Apatite yields P, F and rare earths,  $Al_2O_3$ , a mixt. of potash and soda, and cement can be obtained by treating nephelite. The reserves of the apatite beds contain ore bodies high in sphene. Enriching the sphene produces a concentrate rich in  $TiO_2$ .

W. R. Henn

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CIA-RDP86-00513R000413320001-7"



FIVEG, M. P.

"The Concentration of Phosphorus in the Patyn Massif (Mountainous Shor'ya)" M. P. Fiveg,  
R. A. Matirosyen, Trudy Nauch Inst Udobr i Insektologii im Ya. V. Samoylova, No 146,  
pp 37-44, Khim Referat Zhur 1940, No 1, pp 38 (SEE: Inst. Insect/Fung. in Ya. V.  
Samoylov)

SO: U-237/49, 8 April 1949

FIVEG, M. P.

"Khabin Apatite," S. I. Vol'fkovich, M. P. Fiveg, and L. E. Berlin,  
Nauch Inst Udobreniyam i Insektofungisidam Zhur 1919-39, pp 17-24  
(1939), Khim Referat Zhur 1940, No 6, pp 86 (SEE: Inst. Insect/  
Fungi. in Ya. V. Samoylov)

SO: U-237/49, 8 April 1949

FIVEG, M. P. and CHERNYY, L. M.

"Requirements of Industry as to the Quality of Mineral Raw Materials.  
Handbook for Geologists," Goz. izd-vo geologizheskoy lit-ry Komiteta po delam  
geologii pri SNK SSSR, No.22, 1947

FIVEG, M. P.

PL 52/NOTAO

USSR/Minerals

Rock Salt

Sedimentation

AUG 48

"The Annual Cycle of Sedimentation of Rock Salt in  
the Upper Kamsk Bed," M. P. Fiveg, All-Union Sci  
Inst of Halurgy, 4 pp

"Dok Ak Nauk SSSR" Vol LXI, No 6

Chose this deposit because it does not undergo any  
intensive movement and recrystallization. Therefore  
the salt structure is very close to its structure  
when sedimentation took place. Proves that the group  
of rhythmically constructed streaks of rock salt in  
the Upper Kamsk deposits are actually yearly layers.  
Submitted by Acad D. S. Beljantin, 22 Jun 48.

35/49769

FIVEG, M. P.

"An Estimate of the Duration of Various Saliferous Materials in  
Fossils from Salt Deposits.

report presented at the meeting of the Geochronological Commission, Dept.  
Physical Geography, AU Geog. Society, 1953.

(Izv. Vsesoyuznogo Geograficheskogo Obshchestva, No. 6, Nov/Dec 54.)

FIVEG, M.P.

Formation of potassium salt deposits. Biul.MOIP. Otd.geol. 30  
no.3:3-15 My-Je 55. (MIRA 8:10)  
(Potassium salts)

15-57-8-11306

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 8,  
p 170 (USSR)

AUTHOR: Fiveg, M. P.

TITLE: Geological Study of Potassium Deposits (O nekotorykh  
zadachakh geologicheskogo izucheniya kaliynykh  
mestorozhdeniy)

PERIODICAL: V sb: Vopr. geol. agron. rud. Moscow, AN SSSR, 1956,  
pp 155-161

ABSTRACT: For production of potassium fertilizer, use is made  
chiefly of sylvite-containing rock (sylvinite and the  
so-called solid salt) and of potassium chloride as a  
waste product of carnallite rock used in the production  
of magnesium. In addition, langbeinite-kainite rock  
of the cis-Carpathian district is used directly as a  
fertilizer. At the present time, a plan of treatment  
of the polyhalite ores has been developed to obtain

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15-57-8-11306

Geological Study of Potassium Deposits (Cont.)

potassium sulfate and potassium magnesium sulfate. In the Permian salt-bearing formations, large quantities of polyhalite rock with sylvinites have been found [Zhilyanskoye mestorozhdeniye (deposit)]. Sylvinites with calborite and hydroboracite of the Indyerskoye uplifted region are of great scientific and practical interest. In the cis-Carpathian district, the lenses of the potassium rock in the section of the potassium-bearing strata are correlated with the accurately determined stratigraphic levels of the potassium-bearing series. The content of bromine or the location of nodules of potassium minerals in the rock salt may be used as a prospecting indicator of the potassium deposits. For prospectings of potassium deposits, the Lower Cambrian salt-bearing formation of Eastern Siberia and Miocene Transcaucasia (Avanskaya) present the greatest interest. A high content of bromine and the presence of sylvite are observed in the rock salt of the Serego structure in the Komi ASSR, but the conditions of deposit of the rock salt and the geographical position of the Seregovskaya structure and of structures

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Geological Study of Potassium Deposits (Cont.)

15-57-8-11306

adjacent to it cause them to be poor prospects.  
Card 3/3

V. P. Yeremeyev

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 8,  
pp 169-170 (USSR) 15-57-8-11305

AUTHOR: Fiveg, M. P.

TITLE: Types of Halogenous Basins (Tipy solerodnykh  
basseynov)

PERIODICAL: Tr. Vses. n.-i. in-ta galurgii, 1956, Nr 32, pp 102-  
110

ABSTRACT: Until recently, the "bar" theory of Oxenius on the  
accumulation of saline strata in the lagoons was  
generally recognized. After Oxenius, it was supple-  
mented by recognition of the part played by monsoons  
(Zimmerman), high tides [Vil'frat (?)], and seepage  
through the sands in filling of the basin with sea  
water. It was also supplemented by the explanation  
of the phases of migration of the halogenous basins  
(Howers) with simultaneous existence of the connecting

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15-57-8-11305

Types of Halogenous Basins (Cont.)

lagoons (Branson). The widespread nature of the processes of alteration of the natural brine indicates that there is, in addition to the two types of feeding of the halogenous basins mentioned above, a third, mixed type, which in the past was most widespread. The direct connection of the halogenous basin with the sea is rather the exception than the rule. Therefore, it is impossible to consider the term "lagoon" as synonymous with "saline," as do L. B. Rukhin, A. B. Ronov, and V. Ye. Khain. In the lagoon deposits, gypsum and carbonates usually predominate; this is associated with the unfavorable conditions for retention in them of the saline precipitates. The thickness of the salt-bearing series bears evidence that they were accumulated in the most mobile of the intensively deformed sectors of the earth crust. The nonlagoonal halogenous basins have a long term of life and considerably greater areas. These are the basins on the marginal parts of the platforms and the foremost flexures and should be considered a special type of halogenous basin. Thus halogenous basins may be classed as: 1) marine halogenous

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Types of Halogenous Basins (Cont.)

15-57-8-11305

basins; 2) lagoon and other basins of the coastal area; and 3) saline lakes, solonetzes, and other accumulations of salts under continental conditions. However, marine halogenous basins (Miocene basins of the Tyan-Shan and Kara-Bogaz-Gol depressions) may also exist on the continent. The feeding of saline lakes may also be accomplished in part at the expense of marine salts, as in the compensation lakes on the margins of salt domes and the interduction of marine salts by the wind.

Card 3/3

S. M. Korenevskiy

FIVEG, M.P.

Geological conditions of the sedimentary stage in the origin of  
salt-bearing formations. Vop. min. osad. obr. 3/4:235-240 '56.  
(MLRA 9:11)

1. Vsesoyuznyy institut galurgii, Leningrad.  
(Geology, Stratigraphic) (Salt)

FIVEG, M.P.

Types of salt basins. Trudy VNIIG 32:102-110 '56. (MIRA 11:1)  
(Salt)

FIVEG, M.P.

Formation and distribution of potassium deposits in salt formations.  
Zakonom. razm. polez. isksp. 1:517-530 '58. (MIRA 12:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut galurgii.  
(Potassium)

FIVEG, M. P., Doc~~GEOL~~ MIN~~ER~~ Sci, "GEOLOGICAL CONDITIONS OF THE SEDIMENTATION OF SALT-BEARING SERIES AND THEIR POTASSIUM HORIZONS." Moscow, 1961. (GEOL INST, ACAD SCI USSR). (KL-DV, 11-61, 212).

-60-

FIVEG, M.P.

Facies series of halogen rocks and characteristics of the  
distribution of their members. Zakon, razm. polezn. iskop. 3:167-  
174 '60. (MIRA 14:11)

1. Vsesoyuznyy institut galurgii.  
(Haloidite)

KASHKAROV, O.D.; FIVEG, M.P.; ORLOVA, Ye.V., nauchn. red.;  
CHERNOVITOV, Yu.L., nauchn. red.; FEDOROVA, L.N., red.  
izd-va; IVANOVA, A.G., tekhn. red.

[Industry's requirement as to the quality of mineral raw  
materials] Trebovaniia promyshlennosti k kachestvu mine-  
ral'nogo syr'ia; spravochnik dlia geologov. Izd.2., perer.  
Moskva, Gosgeoltekhnizdat. No.22. [Potassium and magnesian  
salts] Kaliinyye i magnezial'nye soli. 1963. 54 p.  
(MIRA 16:12)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut  
mineral'nogo syr'ya.  
(Potassium salts) (Magnesium oxide)

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... indicates photography

... laboratory tests showed that the pieces in question were a key component in the device.

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"APPROVED FOR RELEASE: 06/13/2000

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CIA-RDP86-00513R000413320001-7"

"APPROVED FOR RELEASE: 06/13/2000

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ACCESSION NO. AP5607645

EXHIBIT NO. 01

1. Block diagram of an electronic camera control system.

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CIA-RDP86-00513R000413320001-7"

FIVEYSKAYA, A.A.

Importance of focal infection in the gallbladder and the biliary ducts in patients with infectious nonspecific polyarthritides in Muggotherapy. Vop.kur., fizioter. i lech. fiz. kul't. 28 no.2:147-152 Mr-Apr'63. (MIRA 16:9)

1. Iz arthrologicheskogo otdeleniya (ispolnyayushchiy obyazannosti zaveduyushchego P.F.Lyudvinskaya) kliniki TSentral'nogo instituta kurortologii i fizioterapii (dir. - kand.med. nauk G.N.Pospelova)

(ARTHRITIS, THEUMATOID)

(BILIARY TRACT—DISEASES) (BATHS, MOOR AND MUD)

L 14263-63

EPR/EWP(j)/EPF(c)/EWT(m)/BDS AFFTC/ASD Ps-4/Pc-4/Pr-4 EM/MN

ACCESSION NR: AP3004576

S/0052/63/029/008/1007/1007

12

AUTHOR: Fiveyskaya, A. K.; Yakovlev, S. A.

TITLE: A method for bonding optical crystal windows to lamps and vessels. [Report presented at a conference on spectroscopy held in Gor'kiy from 5 to 12 July 1961]

SOURCE: Zavodskaya laboratoriya, v. 29, no. 8, 1963, 1007

TOPIC TAGS: spectroscopy, bonding, vacuum-tight bonding, gasket, fluoroplast-3, polychlorotrifluoroethylene, Kel-F, fluorite, lithium fluoride, ultraviolet light source, OK-50, OK-50 heat-resistant adhesive

ABSTRACT: A method has been proposed for the vacuum-tight bonding of a window of crystalline material to a glass vessel for service in the -195 to +150°C temperature range. A flat ring-type gasket of fluoroplast-3 [polychlorotrifluoroethylene], pretreated with a solution of sodium naphthalene complex in tetrahydrofuran, was bonded with OK-50<sup>®</sup>heat-resistant adhesive between the window and the vessel to compensate for the difference in thermal expansion coefficient. After bonding, the part is held at 60—150°C for 3 hr. The method has been tested with fluorite and lithium fluoride windows in vacuum ultraviolet light sources.

Card 1/2

FIVEYSKAYA M.B.

Logarifmicheskiye lineyki s razreznymi shkalami. M.-L., GNTI (1935), 1-44.

SO: Mathematics in the USSR, 1917-1947  
edited by Jurosh, A.G.,  
Markushevich, A.L.,  
Roshovskiy, P.K.,  
Moscow-Leningrad, 1948

FI - 111111, 14.0.

FIVEYSKAYA, M.N.

Accidental wound of the cervical segment of the thoracic duct.  
Khirurgiia no.5:72 My '54. (MLRA 7:7)

1. Is khirurgicheskogo otdeleniya 1-y Kovrovskoy gorodskoy bol'-nitsy, Vladimirsckoy oblasti.

(WOUNDS AND INJURIES,

\*thoracic duct, in surg. of subaxillary tumor)

(AXILLA, neoplasms,

\*subaxillary, surg., accid. inj. of thoracic duct)

(SURGERY, OPERATIVE, complications,

\*inj. of thoracic duct in surg. of subaxillary tumor)

(THORACIC DUCT, wounds and injuries,

\*in surg. of subaxillary tumor)

FIVEYSKIY, D. A. Cand. Tech. Sci.

Dissertation: "Thermophysical Basis for Elimination of Icing in Mine Workings."  
Inst of Mining, Acad Sci USSR, 17 Oct 47.

SO: Vechernyaya Moskva, Oct, 1947 (Project #17836)

21 (8), 15 (9)

AUTHORS:

Mokul'skiy, M. A., Lazurkin, Yu. S., SOV/20-125-5-15/61  
Fiveyskiy, M. B., Kozin, V. I.

TITLE:

The Reversible Radiation-mechanical Effects in Polymers  
(Obratimyye radiatsionno-mekhanicheskiye effekty v polimerakh)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 5,  
pp 1007-1010 (USSR)

ABSTRACT:

By the action of an ionizing radiation the mechanical properties of polymers may be changed to a considerable extent. The authors of the present paper investigated some mechanical properties of polymers during irradiation. The investigation was carried out in water-cooled vertical channels. The fluxes of the neutrons and  $\gamma$ -quanta, as well as the energy dose absorbed by the samples were measured on this occasion. Moreover, several simple devices for measuring the mechanical characteristics of polymers under irradiation were constructed, and, especially, a device for recording the extension curves ( $\delta - \varepsilon$ ) for use in a reactor were reconstructed. The authors investigated polymers of different radiation resistance and different character of the most important radio-chemical variations. By comparing the

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The Reversible Radiation-mechanical Effects in  
Polymers

SOV/20-125-5-15/61

mechanical properties of the samples located in the radiation field with the properties of original samples (and with samples which, though irradiated, were tested after irradiation) reversible radiation-mechanical effects were discovered. They are based upon a temporary reversible variation of the mechanical properties of the polymers. This variation occurs during irradiation and vanishes as soon as irradiation ceases. The authors observed the following reversible processes: 1) Decrease of the strength of polymethylmethacrylate. 2) Decrease of the limit of the enforced elasticity  $\sigma_B'$  of polyvinyl chloride. 3) Increase of breaking elongations of polyvinylchloride. 4) Increase of relaxation rate of the tensions in the investigated substances. 5) Increase of the creep rate of polyvinylchloride, polystyrene, teflon, and rubber. Points 2-5 are then discussed in detail; thus it was found that  $\sigma_B'$  decreases in the case of a dose rate of 46000 rad/sec by ~25 % and increases approximately linearly with an increase of the dose rate. After irradiation ceases, the reversible effect vanishes after less than 1 minute and only a remanent effect

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The Reversible Radiation-mechanical Effects in  
Polymers

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remains. A table contains the values of creep rate under various conditions. As a result of the irreversible destruction effect, the creep rate increases. Also this effect increases linearly with increasing dose rate. The diagrams 3-4 show the considerable reversible change of creep rate caused by the switching-on and -off of irradiation. The reversible radiation-mechanical effects may be of physical and also of chemical nature. The molecules excited by the ionizing particles during the dissipation of energy "pass through" states with weak excitations, which do not suffice for the stripping-off of the chemical bonds, but which correspond to local heating to high temperatures of short duration. This may accelerate the relaxation processes and change several properties of the substance. However, also a chemical mechanism must be taken into account. To what extent it is able to explain the reversible radiation-mechanical effects can be explained only after further investigations. There are 4 figures, 1 table, and 2 Soviet references.

Card 3/4

21.6200

AUTHORS:

Mokul'skiy, M. A., Lazurkin, Yu. S., Fivevskiy, M. B.,  
Kozin, V. I.

TITLE:

Study of the Mechanical Properties of Polymers During the  
Process of Irradiation. I. Strength and Ultimate Forced  
Elasticity of Solid Polymers During the Process of  
Irradiation in a Nuclear Reactor

PERIODICAL:

Vysokomolekulyarnyye soyedineniya, 1960, Vol. 2, No. 1,  
pp. 103-109

TEXT: The authors exposed polyvinylchloride (PVC) and polymethyl-methacrylate (PMMA) to irradiation in a BBP(VVR) nuclear reactor. Data on the neutron beam are given in Table 1. The irradiation was carried out with a dose of 46,000 - 56,000 rad/sec at 20 - 60°C in vertical channels cooled with water. During irradiation, the strength and ultimate forced elasticity  $\sigma_f$  were determined with the apparatus illustrated in Fig. 2, and the creep by that in Fig. 1. Fig. 3 shows the

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Study of the Mechanical Properties of Polymers S/190/60/002/01/13/021  
During the Process of Irradiation. I. Strength B004/B061  
and Ultimate Forced Elasticity of Solid Polymers 8208 1  
During the Process of Irradiation in a Nuclear Reactor

dependence of the strength of PMMA on the integral dose, Fig. 4, the dependence of  $\sigma_f$  with PVC on the integral dose. The decrease in  $\sigma_f$  is almost proportional to the radiation intensity (Fig. 5). The irradiation was interrupted by switching off the reactor, and it was seen that  $\sigma_f$  increased immediately about 25 - 30% (Fig. 6). The breaking length also increased after switching-off of the irradiation (Table 2, Fig. 7). As well as the known irreversible processes, based on interlacing and destruction, reversible processes also occur on irradiation. There are 7 figures, 2 tables, and 5 Soviet references.

SUBMITTED: October 15, 1959

X

Card 2/2

FIVEYSKIY, M.B.; LAZURKIN, Yu.S.; MOKUL'SKIY, M.A.

[Simple calorimetric method for measuring the absolute energy dose received by substances situated in powerful fields of ionizing radiations] Prostoi kalorimetricheskii metod izmerenilia absoliutnoi energeticheskoi dozy, poluchayemoi veshchestvami v moshchnykh poliakh ioniziruiushchikh izluchenii. Moskva, In-t atomnoi energii, 1960. 10 p.  
(MIRA 17:1)

Fiveyskiy, M.B.

21.6200

S/190/60/002/01/14/021  
B004/B061  
82082

AUTHORS: Mokul'skiy, M. A., Lazurkin, Yu. S., Fiveyskiy, M. B.

TITLE: Investigation of the Mechanical Properties of Polymers  
During the Process of Irradiation. II. Creep of Solid  
Polymers and Rubbers During the Process of Irradiation in  
a Nuclear Reactor

PERIODICAL: Vysokomolekulyarnyye soyedineniya, 1960, Vol. 2, No. 1,  
pp. 110 - 118

TEXT: The aim of this work was to establish changes in mechanical properties which re-form after cessation of the irradiation. The method of examination is described in Ref. 1. The authors examined the creep rate in dependence on the mechanical stress applied and the integral dose. Fig. 1 shows the change in creep for unplasticized polyvinyl-chloride at a radiation intensity of 46,000 rad/sec, a stress of 0.5 kp/mm<sup>2</sup>, and 52°C. For comparison, data are given, that were obtained from nonirradiated material, and material taken out of the radiation

Card 1/2

Investigation of the Mechanical Properties of Polymers During the Process of Irradiation.  
II. Creep of Solid Polymers and Rubbers During the Process of Irradiation in a Nuclear Reactor

S/190/60/002/01/14/021  
B004/B061  
82082

field. Fig. 2 shows the same data for a stress of 1 kp/mm<sup>2</sup>. The time dependence of creep is reproduced in Fig. 3. A Table gives the experimental data. The same experiments were carried out with unplasticized polystyrene, plasticized PVC (Fig. 4), vulcanized rubber from natural rubber of the type HK (HK) (Fig. 5), from CKH-18 (SKN-18) nitrile rubber (Fig. 6), and from polyisobutylene rubber (Fig. 7). In all the substances examined, the creep rate increased in bounds, and decreased again when the radiation was switched off. This effect increased with increasing irradiation intensity. A reversible change in the relaxation rate was observed. The authors mention a paper by Yu. S. Zuyev (Ref. 4), thank N. V. Zvonov for making the experiments on the reactor possible, and the mechanics I. F. Yermakov and K. K. Shcherbo for their collaboration. There are 7 figures, 1 table, and 6 Soviet references.

SUBMITTED: October 15, 1960

Card 2/2

9,6150  
21.8100

AUTHORS:

Fiveyskiy, M. B., Lazurkin, Yu. S., Mokul'skiy, M. A.

TITLE: A Simple Calorimetric Method of Measuring the Absolute Energy Dose Received by Substances in Strong Fields of Ionizing Radiation

PERIODICAL: Atomnaya energiya, 1960, Vol. 9, No. 4, pp. 321 - 323  
TEXT? A steady calorimetric method is used for measuring the radiation energy received by a sample if the dose rate is not too high and the effect of other energy-generating processes in the sample is negligible. For intense irradiation (high dose rate), this method is not applicable, particularly because the establishment of thermal equilibrium takes too long a time; in this case, the sample is so strongly heated that it either melts or disintegrates; at least the high absorbed integral dose changes the structure and properties of the sample significantly. For this reason, the authors of the present "Letter to the Editor" developed in 1957 a simple nonsteady calorimetric method which is suitable for studies on reactors and other sources of strong radiation. The method has been tested during the last few years. The principle of the method is as follows. A sample for dose-measuring is placed at time t=0 in a radiation

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84236

S/089/60/009/004/016/020  
B006/B070

A Simple Calorimetric Method of Measuring the  
Absolute Energy Dose Received by Substances in  
Strong Fields of Ionizing Radiation

84236  
S/089/60/009/004/016/020  
B006/B070

field which is homogeneous and constant within the sample, under such conditions that the temperature at the center of the sample increases linearly for a time  $\tau$  independently of the surrounding temperature.  $\tau$  is proportional to the square of the characteristic sample dimension  $d$  and inversely proportional to the coefficient of thermal diffusivity  $\chi$ . Therefore,  $dT/dt$  is a function of the dose rate and heat capacity of the sample, and the dose rate can be calculated from the formula  $P = 0.417 c(dT/dt)_o$ .  $c$  is the specific heat of the sample material (cal/g.degree);  $(dT/dt)_o$  is measured in deg/hour, and  $P$  in Mrad/hour.

Polystyrene, polyethylene, silicone rubber, Teflon, molten quartz, etc. were used for the dosimeter. The sample had a cylindrical form (30 mm diameter and 50 mm height). This size has a  $\tau$  value of 2 - 3 minutes which is required for the measurement of  $dT/dt$  (Fig. 1). In this time interval, the mutual shielding of the parts of the sample may be neglected. Copper-constantan thermocouples were used for the measurement of temperature. The construction of the dosimeter is very simple (Fig. 2). All parts with the exception of the thermocouple consist of nonactivizable materials. The

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A Simple Calorimetric Method of Measuring the  
Absolute Energy Dose Received by Substances in  
Strong Fields of Ionizing Radiation

S/089/60/009/004/016/020  
B006/B070

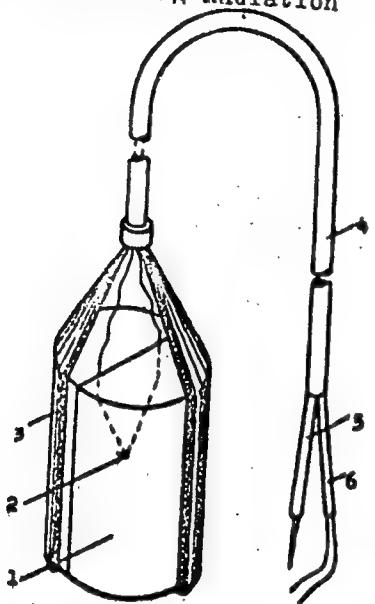
whole instrument was inserted in a perpendicular hole in a reactor and checked in a radiation-free zone before measurements were carried out. In this manner, the dose rates for different substances were measured in the holes of the BBR (VVR) reactor. The error was 5 - 10%. Fig. 3 shows the distribution of the dose rate along a hole in this reactor for polyethylene and quartz glass. With this method the anomalies of the  $T(t)$  curves may also be found. Thus, for example, the  $T(t)$  curve of polytetrafluoroethylene shows a sharp bend which may be ascribed to a phase transformation due to irradiation (cf. Fig. 4). There are 4 figures and 4 references: 3 Soviet and 1 US.

SUBMITTED: April 14, 1960

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A Simple Calorimetric Method of Measuring the  
Absolute Energy Dose Received by Substances in  
Strong Fields of Ionizing Radiation

84236  
S/089/60/009/004/016/020  
B006/B070



1 - specimen. 2 - ther-  
mocouple hot junction.  
3 - aluminum foil. 4 -  
flexible suspender-insu-  
lator. 5 - thermocouple  
cold junction. 6 - ter-  
minals connected to a  
measuring instrument.

X

Card 4/4

~~SECRET~~, ~~TOP SECRET~~  
215-210  
43247

S/844/62/000/000/109/129  
D408/D307

AUTHORS: Lazurkin, Yu. S., Mokul'skiy, M. A. and Fiveyskiy, M. B.

TITLE: Nature of the reversible acceleration of mechanical relaxation processes in polymers under irradiation

SOURCE: Trudy II Vsesoyuznogo soveshchaniya po radiatsionnoy khimi. Ed. by L. S. Polak. Moscow, Izd-vo AN SSSR, 1962, 638-641

TEXT: By "acceleration of mechanical relaxation processes" is understood a wide range of phenomena, including acceleration of stress relaxation, acceleration of creep, and decrease of ultimate forced elasticity. In the present work the authors studied the acceleration of creep (KH-15 (SKN-18) nitrile rubber irradiated in a nuclear reactor, this being a continuation of previous investigations, with the difference that in the earlier work the effect of irradiating rigid polymers was studied. Samples of the test material were stretched under constant load for 45 hours to attain equilibrium deformation, almost all the deformation occurring during the first 10 - 20 minutes; other samples were stretched for 16 mins. The Card 1/2

Nature of the reversible ...

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D408/D307

stretched samples, still under load, were irradiated at intensity  $2 \times 10^4$  rad/sec, whereupon creep was initiated at the rate of  $4 \times 10^{-3}$  sec $^{-1}$  in both cases. The results indicated that the acceleration of creep and relaxation in resins was caused by rupture of lattice bonds, i.e. the so-called 'chemical' mechanism, and not by the "physical" mechanism (described in an earlier work) as is the case when rigid polymers are irradiated. Efficiency of the destruction process was evaluated by the method of Tobolskiy et al for the analysis of chemical relaxation. By means of the kinetic theory of resin elasticity an equation was derived relating the rate of creep under irradiation to the number of bonds rupturing per second in 1 cm $^3$  of material. Substituting into this equation the experimental data for SKN-18 rubber, natural rubber and polyisobutylene, the numbers of bonds rupturing per 100 ev of absorbed energy were estimated to be 3, 4, and 19 respectively. There is 1 figure.

ASSOCIATION: Institut atomnoy energii AN SSSR (Institute of Atomic Energy, AS USSR)

Card 2/2

FIVEYSKIY, Yu., kapitan dal'nego plavaniya

Against primitive methods and laxity. Mor. flot 22  
no.11:10 N '62. (MIRA 15:12)  
(Merchant marine)

83585

S/056/60/038/005/018/050  
B006/B07024.6 510  
AUTHORS:Nemirovskiy, P. E., Fiveyskiy, Yu. D.

TITLE:

The Effect of Coulomb Attraction on the Cross Section of  
Anti-proton Absorption by NucleiPERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960,  
Vol. 38, No. 5, pp. 1486-1488

TEXT: As is known, the anti-nucleon - nucleus interaction cross section is considerably larger than that of the interaction with protons or neutrons. A qualitative theoretical explanation of this effect can be given on the basis of the optical model. On account of focusing of the trajectories of the anti-protons by the Coulomb field of the nucleus, the cross section for absorption by the nucleus increases significantly for anti-protons whose energies are comparable with the Coulomb energy at the boundary of the nucleus. This focusing effect has been calculated here on the basis of the optical model. These calculations are applicable to all negatively charged, strongly absorbing particles, particularly when the wavelengths  $\lambda$  in the case of energies of the order of the Coulomb energy

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The Effect of Coulomb Attraction on the Cross Section of Anti-proton Absorption by Nuclei S/056/60/038/005/018/050  
B006/B070

$V_c$  at the boundary of the nucleus are small compared to the nuclear radius  $R$ :  $\lambda(R) = \hbar/\sqrt{2\mu V_c(R)} \ll R$ . ( $\mu$  is the reduced mass of the particle and the nucleus). A complex potential acts on the anti-proton inside the nucleus. In the present work, both the attractive potential of the nucleus (negative real part of the complex potential) and the repulsive potential (positive real part) are considered. Assuming the potential to be given by

$$\begin{cases} -U_0(1+i\frac{r}{R}) & 0 \leq r \leq R \\ -Ze^2/r & R \leq r \end{cases}$$

, the anti-proton absorption cross sections are calculated for the nuclei of C, Cu, and Pb at 0.5 Mev (Table 1); the anti-neutron absorption cross sections are also given for comparison (Table 2). The results are:

Nucleus	$U_0$ [Mev]	1	$\sigma_c^{max}$ [b]	$U_0$ [Mev]	1	$\sigma_c'$ [b]	$\sigma_c^{max}(p)/\sigma_c(n)$
C <sup>12</sup>	33	≤1	3.2	30	≤1	0.82	4
Cu <sup>63</sup>	38	≤3	11.2	30	≤2	1.12	10
Pb <sup>208</sup>	43	≤5	≥18	30	≤3	2	~10

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83585

The Effect of Coulomb Attraction on the Cross Section of Anti-proton Absorption by Nuclei S/056/60/038/005/018/050  
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(1 gives the contribution to the cross section). Due to Coulomb attraction, the anti-proton absorption cross sections for energies lower than the Coulomb energy are 4 to 10 times as large as the anti-neutron cross sections for the same energy. There are 2 tables and 4 references; 2 Soviet and 2 US. ✓

SUBMITTED: August 12, 1959

Card 3/3

FIVEYSKIY, Yu.D.

Effect of the refraction of an antiproton beam on the absorption cross section. Izv.vys.ucheb.zav.; fiz. no.3:76-79 '61.  
(MIRA 14:8)

1. Moskovskiy inzhenerno-fizicheskiy institut.  
(Protons) (Nuclear reactions)

FIVEYSKIY, YU. D.

95

S/089/62/013/006/019/027  
B102/B186

AUTHORS: G. T. and M. R.

TITLE: Nauchnaya konferentsiya Moskovskogo inzhenerno-fizicheskogo instituta (Scientific Conference of the Moscow Engineering Physics Institute) 1962

PERIODICAL: Atomnaya energiya, v. 13, no. 6, 1962, 603 - 606

TEXT: The annual conference took place in May 1962 with more than 400 delegates participating. A review is given of these lectures that are assumed to be of interest for the readers of Atomnaya energiya. They are following: A. I. Leypunskiy, future of fast reactors; A. A. Vasil'yev, design of accelerators for superhigh energies; I. Ya. Pomeranchuk, analyticity, unitarity, and asymptotic behavior of strong interactions at high energies; A. B. Migdal, phenomenological theory for the many-body problem; Yu. D. Fiveyskiy, deceleration of medium-energy antiprotons in matter; Yu. M. Kogan, Ya. A. Iosilevskiy, theory of the Mössbauer effect; M. I. Ryazanov, theory of ionization losses in nonhomogeneous medium; Yu. B. Ivanov, A. A. Rukhadze, h-f conductivity of subcritical plasma;

Card 1/4

24 6610

S/056/62/042/003/025/049  
B102/B138AUTHOR: Fiveyskiy, Yu. D.

TITLE: Deceleration of antiprotons in matter

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42,  
no. 3, 1962, 799 - 802

TEXT: A theoretical investigation is given of antiproton deceleration in light elements, assuming that the atomic mass of the moderator is much greater than that of the antiproton and that the antiproton energy E is smaller than the  $\pi^0$  production threshold:

$E < m_{\bar{p}} c^2 - Z^2 \epsilon^4 N / 2 \pi^2 n^2$ , where  $\epsilon$  is the elementary charge and  $n$  the principal quantum number of the antiproton in bound state. The cross section of antiproton capture onto atomic shells is calculated, which can occur as radiative capture, as knock-out process (Auger effect), or via  $\pi^0$  emission

$\sigma_{\text{at}} = \sigma_{\text{rad}} + \sigma_{\text{Auger}} + \sigma_{\pi^0}$ . Calculations are carried out for

$E \gg Z^2 \epsilon^4 \mu / 2^2$ ,  $n' \ll \sqrt{M/m}$ ;  $n' = Z/k$ ,  $E = k^2/2$  being measured in terms of

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Deceleration of ...

$\varepsilon^4 M/n^2$ ,  $\mu$  is the electron mass. The total capture cross section  $\sigma = \sigma_c + \sigma_{at}$ , where  $\sigma_c$  refers to nuclear capture; in the energy range considered,  $\sigma_{rad} \ll \sigma_c$ , and  $\sigma_{Auger} \ll \sigma_c$ , so that for light and medium nuclei,  $\sigma \approx \sigma_c$ . That means that the antiprotons in this energy range are mainly absorbed by nuclei. The number of antiprotons only slightly changes during their slowing down. These results follow from numerical estimates carried out for C and Cu. Slowing down from e. g. 50 Mev to 50 kev weakens the antiproton beam by a factor of  $e^{-0.05}$  for C and  $e^{-0.037}$  for Cu. If  $E \ll Z^2 \varepsilon^4 M/2\pi^2$  and  $n' \gg \sqrt{M/\mu}$ , for  $\sigma_{rad}$

$$\sigma_{n,n-1,0}^{rad} \sim \pi \frac{e^2}{Mc^4} \frac{\mu^2}{Mc^3} \frac{1}{3} \sqrt{\frac{\pi}{n}} \left(\frac{2}{e}\right)^{2n} (n')^4 \quad (n \ll n'). \quad (13)$$

(13) is obtained for  $E \rightarrow 0$ , and for  $\sigma_{Auger}$

$$\sigma_{n,n-1,0}^{Auger} \sim \pi \left(\frac{\mu^2}{Mc^4}\right)^3 \left(\frac{\mu}{M}\right)^3 \frac{(2n)^3}{32\pi^4} \sqrt{\frac{\pi}{n}} \left(\frac{2}{e}\right)^{2n} \frac{(n')^4}{\sqrt{M/\mu - n^2}}. \quad (15).$$

The energy of the Auger electron is given by  $E_e \approx Z^2 \varepsilon^4 M / 2\pi^2 n^2 - Z^2 \varepsilon^4 \mu / 2\pi^2$ .

In this case for  $E \rightarrow 0$  the Auger effect prevails over radiative capture as well as nuclear capture. P. E. Nemirovskiy is thanked for help. There

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Deceleration of ...

S/056/62/042/003/025/049  
B102/B138

are 8 references: 2 Soviet and 6 non-Soviet. The two references to English-language publications read as follows: E. Fermi, E. Teller. Phys. Rev. 72, 399, 1947; B. Desai, Phys. Rev. 119, 1335, 1960.

ASSOCIATION: Moskovskiy inzhenerno-fizicheskiy institut (Moscow Engineering Physics Institute)

SUBMITTED: July 13, 1961

Card 3/3

FIVEYSKIY, Yu.D.

Deceleration of medium-energy protons in matter. Izv. vys. ucheb.  
zav.; fiz. no.4:93-99 '63. (MIRA 16:9)

1. Moskovskiy inzhenerno-fizicheskiy institut.  
(Protons)

L-21730-63 ENT(m) DIAAP/SSD/AFAC

TRAN NR: APS002250

3/0125/FBI/DOJ/DOA/DOB/DOO/DOO/DOO

AUTHOR: Fiveyskiy, Yu. D.

TITLE: Concerning the capture of an antiproton by atomic shells with emission of an atomic electron

SOURCE: IVUZ. Fizika, no. 6, 1964, 6-10

TOPIC TAGS: Auger effect, antiproton, capture cross section

**ABSTRACT:** This is a continuation of earlier work by the author (ZhETF v. 42, No. 4; Izv. vuzov SSSR, Fizika, No. 4, 72, 1967) and contains a derivation of the theory of the Auger effect in light and medium nuclei. The theory is based on the theory of the negative pion and the light nucleus as a system of two particles. Necessary energy factors are calculated for the first time. The energy interval of the Auger effect is not a point particle, but a finite interval. The Auger effect in the investigated antiproton energy interval is due essentially

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L 21736-65

ACCESSION NR: AP5002250

to the emission of K-electrons. When the antiprotons have low energy, they are captured predominantly in the state with quantum numbers  $n \neq 1, m = 0, l \neq 0$ .  
That the nucleus is not a point requires the consideration of the finite size of the nucleus.

ASSOCIATION: Moskovskiy inzhenerno fizicheskiy institut (Moscow Engineering Physics Institute)

SUBMITTED: 25Apr63

ENCL: 00

SUB CODE: NP

NR REF Sov: 004

OTHER: 003

Card 2/2

FIWEG, M.P.

Deposits of potassium in the U.S.S.R. Pt. 1. Rev min 16 no.1:  
37-40 Ja '65.

FIWEG, M.P.

Potassium deposits in the U.S.S.R. Pt.2. Rev min 16 no.2:70-  
75 F '65.

STALEWSKI, Ryszard; SIR, Jan; FLWIK, Tadeusz

A case of coexistence of multiple myeloma and pulmonary cancer. Nowotwory 15 no.2:203-207 Ap-Je '65.

1. Z I Kliniki Chorob Wewnętrznych Pomorskiej AM w Szczecinie (Kierownik: doc. dr. med. K. Gregorczyk) i z Zakładu Anatomii Patologicznej Pomorskiej AM w Szczecinie (Kierownik: prof. dr. med. K. Stojalowski).

FIXA, Bohumil; VYCICHL, Josef; ZARUBA, Karel; KOS, Jiri; VODICKA, Karel

Hepatorenal syndrome. Sborn. ved. prac. lek. fak. Karlov. univ. (Hrad  
Kral) (Suppl.) 4 no.3:271-282 '61.

1. II. interni klinika; prednosta prof. MUDr. V. Jurkovic.  
(LIVER DISEASES case reports) (KIDNEY DISEASES case reports)

FIXA, B.; HEROUT, V.

Value of gastric secretion tests in the diagnosis of chronic gastritis. Cesk. gastroent. vyz. 15 no.6:455-466 S '61.

1. II. interni klinika LF KU v Hradci Kralove, prednosta doc. MUDr. Vilo Jurkovic a Patologickanatomicky ustav LF KU v Hradci Kralove, prednosta prof. MUDr. A. Fingerland, Dr. Sc.  
(GASTRITIS diag) (GASTRIC JUICE)

FIXA, B.; KOMARKOVA, O.; technicka spoluprace: VOTIKOVA, J.

Examination of acid and basic gastric secretion in clinical practice.  
Cesk. gastroent. vyz. 15 no.7:490-497 N '61.

1. II interni klinika LF KU v Hradci Kralove, prednosta doc. MUDr.  
Vilo Jurkovic.  
(GASTRIC JUICE)

38

प्रतिक्रीया, विद्यालय, लखनऊ, वर्ष १९८२, संख्या ५४२ (संलग्न)

卷之三

Fixe, B.

FIXA, Bohumil

Gastric acidity as the index of inflammatory changes in the gastric mucosa. Review of the literature. Gas. lek. cesk. 101 no.18:567-569 My '62.

1. II interni klinika lekarske fakulty KU v Hradci Kralove prednosta prof. dr. Vilo Jurkovic.  
(GASTRIC JUICE) (GASTRITIS diag)

JEBAVY, Zdenek; BARTOS, Vladimir; NERAD, Vladimir; SKAUNIC, Vladimir;  
FIXA, Bohumil; KOMARKOVA, Olga; SAZMOVA, Vera; HRADSKY, Mikulas.

Analysis of salivary secretion and some electrolytes in the  
saliva in relation to age. Sborn. ved. prac. lek. fak. Karlov.  
univ. (Hrad. Kral.) 6 no. 5: suppl. 609-618 '63

1. Stomatologicka klinika (prednosta: prof. MUDr. L.Sazama, CSc.);  
I. interni klinika (prednosta: prof. MUDr. F.Cernik) a II. in-  
terni klinika (prednosta: prof. MUDr. V. Jurkovic), Karlova  
Universita v Hradci Kralove.

FIXA, B.

2  
CZECHOSLOVAKIA

FIXA, B; KOMARKOVA, O; HEROUT, V.

1. Second Internal Medicine Clinic LF KU (II. vnitrni kliniky LF KU), Hradec Kralovy; 2. Pathological Anatomy Institute LF KU (Patologicki-anatomicki ustav LF KU), Hradec Kralovy

PRAGUE

Brno, Vnitrni lekarstvi, No 8, 1963, pp 729-736

"The Change of Gastric Secretion and Its Relation to the Morphology of Gastric Mucosa in Diabetic Patients."

FIXA, B.; KOMARKOVA, O.; KOS, J.; HEROUT, V.

Morphological changes in the gastric mucosa in diabetics.  
Cesk. gastroent. vyz. 17 no. 3:129-134 Ap '63.

1. II interni klinika lekarske fak. KU v Hradci Kralove,  
prednosta prof. dr. V. Jurkovic Patologickoanatomicky ustav  
lekarske fakulty KU v Hradci Kralove, prednosta prof. dr.  
A. Fingerland, DrSc.

(DIABETES MELLITUS) (GASTRIC MUCOSA)  
(GASTRITIS)

FIXA, B.; HRADSKY, M.; KOMARKOVA, O.; HEROUT, V.

Acute exacerbation of chronic gastritis. (Clinico-morphological correlation study). Cesk. gastroent. vyz. 17 no.3: 149-153 Ap '63.

1. II vnitrní klinika lekarské fakulty KU v Hradci Králové,  
prednosta prof. dr. V. Jurkovic Klinika vnitrní propedeutiky  
lekarské fakulty KU v Hradci Králové, prednosta doc. dr.  
F. Černík Patologickoanatomický ústav lekarské fakulty KU v  
Hradci Králové, prednosta prof. dr. A. Fingerland, DrSc.  
(GASTRITIS) (DYSPEPSIA)

FIXA, B.; KOMARKOVA, O.

Selection of healthy subjects for the examination of "normal"  
gastric secretion and the problem of control groups for compari-  
son in studies on gastric secretion. Cesk. gastroent. vyz. 17  
no.5:275-278 Jl '63.

1. II interni klinika lekarske fakulty KU v Hradci Kralove,  
prednosta prof. dr. V. Jurkovic.  
(GASTRIC JUICE) (GASTRIC MUCOSA) (GASTRITIS)

CZECHOSLOVAKIA

FIXA, B.; KOMARKOVA, O.; JURKOVIC, V.; HEROUT, V.; 2nd Clinic of Internal Medicine at the Faculty of Medicine of the Charles University /II. interni Klinika Lekarske Fakulty KU 7, Hradec Kralove, Head Prednosta/Professor Doctor V. JURKOVIC ; Institute of Pathological Anatomy at the Faculty of Medicine at the Charles University /Patologickoanatomicky Ustav Lekarske Fakulty KU 7, Hradec Kralove, Head Prednosta/Professor Doctor A. FINGERLAND.

"On the Problem of Venostatic Gastritis in Patients with Congestive Heart Failure."

Prague, Casopis Lekaru Ceskych, Vol 102, No 43, 1963, pp 1184-1188

Abstract [Authors' English Summary]: Gastric mucosa of 20 patients suffering from congestive heart failure and of 20 compensated cardiac patients was examined by resection biopsy. Chronic gastritis was as frequent in patients with right sided cardiac failure as in compensated cardiac patients. It appears therefore that stomach congestion in right sided cardiac failure is not the cause of gastritis. No relation was found between incidence of gastritis and duration of decompensation. Dyspeptic complaints are more frequent 1/2

CZECHOSLOVAKIA

Prague, Casopis Lekaru Ceskych, Vol 102, No 43, 1963, pp 1184-1188

in decompensated than in compensated patients. No connection was found between dyspepsia and the condition of the gastric mucosa. Chronic gastritis is not the cause of indigestion in cardiac patients.

3 Tables, 33 Western 7 Czech references.

2/2

BARTOS, V.; SKAUNIC, V.; NERAD, V.; HRADSKY, M.; FILKA, B.; KOMARKOVA, O.

External pancreatic secretion in relation to age. Cesk. gastro-  
ent. vyz. 17 no. 7:395-401 N°63

I. I. interni klinika (prednosta doc. dr. F. Cernik) a II.  
interni klinika (prednosta prof. dr. V. Jurkovic) lekarske  
fakulty Karlovy University v Hradci Kralove.

FIXA, Bohumil

A contribution to the functional diagnosis of chronic gastritis associated with a study on the relationship between chronic gastritis and several frequently occurring internal diseases.  
Sborn. ved. prac. lek. fak. Karlov. Univ. 7 no.5:727-741 '64.

1. II. interni klinika (prednosta: prof. MUDr. V. Jurkovic, DrSc.), Lekarske fakulty Karlovy University v Hradci Kralove.

VULIS, D.A., inzh.; FIYAKH, V.S.

Helicopters in road surveys. Avt. dor. 24 no.10:16-17 0 '61.  
(MIRA 14:11)  
(Roads--Surveying) (Helicopters)

PIYALKO, Ye.I.

Relationship between the mean hourly rate of registered meteors  
and the parameters of meteor bodies, the atmosphere, and the  
radar. Astron.shur. 37 no.4:753-763 Jl-Ag '60. (MIRA 13:8)

1. Tomskiy politekhnicheskiy institut.  
(Meteors) (Radar in astronomy)

PIYALKOV, A.S." kand. tekhn. nauk; LIVSHITS, P.S., inzh.

Problems in the production of electric brushes. Vest. elektrorem.  
29 no. 5:18-22 My '58. (MIRA 11:7)

1. Filial Nauchno-issledovatel'skogo instituta elektricheskoy  
premyshlennosti. (Brushes, Electric)

FIYALO, YA.

DOBRYI, E.; FIYALO, Ya.; GUTTERHYNDOVA, Ye.

Development and current trends in blood transfusion services in  
Czechoslovakia. Probl.gemat. i perel.krovi 2 no.6:50-54 N-D '57.  
(MIRA 11:2)

1. Iz Prazhskogo instituta hematologii i perelivaniya krovi (dir. -  
doktor meditsinskikh nauk I.Kidery)  
(BLOOD TRANSFUSION,  
in Czech. (Rus.))

1. FIVATE, D.M.; BERKMAN, YE.M.
2. USSR (600)
4. Ink
7. Sizing of paper, and ink for letters. Bum. prom. 27 no. 10. 1952

9. Monthly List of Russian Accessions, Library of Congress, March, 1957. Unclassified.

**PIYEREL'**, Il'ya Mikhaylovich

[Peptic ulcer] Izvennaya bolez'. Izd.2.. perer. i dop.  
Leningrad, Medgiz, 1958. 419 p.  
(PEPTIC ULCER) (MIRA 12:6)

FIZDEL', I.A., kandidat tekhnicheskikh nauk.

Vibration concrete spreader. Mekh.stroi. 4 no.1:13 Ja '47.  
(MLRA 9:3)

1. TSentral'naya nauchno-issledovatel'skaya laboratoriya tresta  
"Stroitel'".  
(Concrete construction)

FIZDEL', I. A.

PA 243T39

USSR/Engineering - Construction, 15 Oct 52  
Methods

"Underground Heading of Holes by the Vibration  
Vacuum Method," I. A. Fizdel', Cand Tech Sci, Lab  
of "Stroitel" Trust

"Byul Stroit Tekh" No 19, pp 13-16

Describes method developed by author jointly with  
G.B. Paraubek for constructing underground tunnels  
for laying pipelines and cables. Method is based  
on utilization of vacuum and vibration. Thin-  
walled steel cylinder sunk into ground forms  
closed container sealed by its lid and by the

243T39

ground, which serves as a bottom. On creating  
vacuum inside container, atmospheric pressure  
compels cylinder to move into ground. Schematic  
drawing of equipment given.

243T39

FIZDEL', I.A., kandidat tekhnicheskikh nauk; PARAUBEK, G.E., kandidat tekhnicheskikh nauk.

Vibro-vacuum cutting of horizontal boreholes for underground pipelines.  
Rats. i izobr. prodl. v stroi. no.56:20-27 '53. (MLRA 9:7)  
(Boring machinery) (Pipelines)

FIXDEL', I.A., kandidat tekhnicheskikh nauk; FRENKEL', I.M., kandidat tekhnicheskikh nauk, Pedaktor; POPOV, V.I., redaktor; DAKHNOV, V.S. tekhnicheskiy redaktor.

[Field method of testing strength of concrete] Polevai metod otseinki prechnosti betona. Moskva, Gos.izd-vo lit-ry po stroystvu i arkhitekture, 1955. 23 p.  
(Concrete--Testing)

(MLRA 9:4)

FIZDEL, I.

Method of eliminating filtration of water in concrete and stone masonry. (To be contd.)  
p. 19.

Vol. 2, no. 9, 1955  
STROITELSTVO  
Sofiya, Bulgaria

So; <sup>g</sup>Eastern European Accession Vol. 5 No. 4 April 1956

FIZDEL, I.

Defects in concrete and stone construction and methods  
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2925. EFFECT OF A SINGLE PERIOD OF EFFORT ON MYOCARDIAL CHOLINESTERASE ACTIVITY - Vplyv jednorazového pracovného zataženia organizmu na aktivitu cholinesteráza v myokarde - Barta E., and Fízel A.

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Measurements of ChE activity in the myocardium following a single period of effort in the form of swimming in rats showed a different course of changes of activity in the left and right ventricle. The activity in the left ventricle immediately after termination of swimming was somewhat higher than in controls, and increased slightly until the 120th min. after termination of the swimming. In the right ventricle the ChE activity, which was higher in controls, decreased by 24.8% after effort and at 30 min. after termination of effort load it was even 35.6% lower than in controls. This course of changes excludes to a significant degree a directly or indirectly proportional relation between vagotomy and ChE activity. (II, 18)

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